- 51 -

JEQUENCE LIBTING

5	1 HENE	RAL INFORMATION:
.,	1	APPELMANTS dismober laurse Hoset al.
1 ()	::	TITLE OF INVENTI No Human co-Maf (Compussitions and Methods of Use Thereof
1 ()	iii)	NUMBER OF SEQUENCES: 2
15	1W.	CORRESPONDENCE ADDRESS: (A) ADDRESSEE: LAHIVE & COCKFIELD, LLP (B) STREET: D8 State Street (C) CITY: Boston (D) STATE: Massachusetts (E) COUNTRY: USA (F) ZIP: 02109
20	Λ.,	COMPUTER READABLE FORM: (A) MEDIUM TYPE: Ploppy disk (B) COMPUTER: IBM PC compatible (C) OPERATING SYSTEM: PC-DOS/MS DOS (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
8()	(vi)	CURRENT APPLICATION DATA: (A) APPLICATION NUMBER: (B) FILING DATE: (C) CLASSIFICATION:
35	(vii)	PRIOR APPLICATION DATA: (A) APPLICATION NUMBER: 09/030,579 (B) FILING DATE: 2-FEB-1998
10	viii)	ATTORNEY/AGENT INFORMATION: (A) NAME: Kara, Catherine J. (B) REGISTRATION NUMBER: 41,106 (C) REFERENCE/DOCKET NUMBER: HUI-027CP
***	ix)	TELECOMMUNICATION INFORMATION: (A) TELEPHONE: (617)227-7400 (B) TELEFAX: (617)742-4214
15	(0) INFO	RMATION FOR SEQ ID NC:1:
5()	(i)	SEQUENCE CHARACTERISTICS: (A) LENGTH: 1203 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear
55	(ii)	MOLECULE TYPE: cDNA
	1 1 1 X	

(ix) FEATURE:

A NAME REY: 100 B D/CATION: 1001038

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10	Met 1	Ala	24-2	ilu	Leu 5		Mert	8.01	Ann	210 Y		Len	Pio	Thi	11-11 15	
	"TG	GCC	AT:}	JAA	TAT	GTT	AAT	GAC	TTC	iаT	1771, 1 1 7	77.;	AAG	TTT	17.7	;;;;
15	Leu	Ala	Met	Glu 20		Val	Asm	Asp	Phe 25	Aap	Lesu	Met	Lys	Phe 30	Glu	Wal
	AAA 144	252413	GAA	ccd	GTG	GAG	ACC	GAC	dac	ATC	ATC	AG.	CAG	TGC	77	CH
20	Lys	Lys	Glu 35		Val	Glu	Thr	Asp 40	Arg	Ile	lle	Ser	Gln 45	Cys	Gly	Ālģ
	UTC 192	ATC	GCC	GGG	GGC	TCG	CTG	TCC	TCC	ACC	CCC	ATO	AGC	ACG	CEST	T. p. *
25	Leu	lle 50	Ala	Gly	Gly	Ser	Leu 55	Ser	Ser	Thr	Pro	Met 60	Ser	Thr	Pro	Cys
	AGC 240	TCG	GTG	CCC	CCG	TCC	CCC	AGC	TTC	TCG	GCG	CCC	AGC	CCG	GGC	TCG
30	Ser 65	Ser	Val	Pro	Pro	Ser 70	Pro	Ser	Phe	Ser	Ala 75	Pro	Ser	Pro	Gly	Ser 80
	CGA 288	GGC	GAA	CAG	AAG	GCG	CAC	CTG	GAA	GAC	TAC	TAC	TGG	ATG	ACC	GGC
35	Arg	Gly	Glu	Gln	Lys 85	Ala	His	Leu	Glu	Asp 90	Tyr	Туг	Trp	Met	Thr 95	Gly
	TAC 336	CCG	CAG	CAG	CTG	AAC	CCC	GAG	GCG	CTG	GGC	TTC	AGC	CCC	GAG	GAC
40	Tyr	Pro	Gln	Gln 100	Leu	Asn	Pro	Glu	Ala 105	Leu	Gly	Phe	Ser	Pro 110	Glu	Asp
	GCG 384	GTC	GAG	GCG	CTC	ATC	AGC	AAC	AGC	CAC	CAG	CTC	CGG	GGC	GGC	TTC
45		Val	Glu 115	Ala	Leu	Ile	Ser	Asn 120	Ser	His	Gln	Leu	Arg 125	Gly	Gly	Phe
	GAT 432	GGC	TAT	GCG	CGC	GGG	GCG	CAG	CAG	CTA	GCC	GCG	GCG	GCC	GGG	GCA
50		Gly 130	Tyr	Ala	Arg	Gly	Ala 135	Gln	Gln	Leu	Ala	Ala 140	Ala	Ala	Gly	Ala
	GGT 480	GCC	GGC	GCC	TCC	TTG	GGC	GGC	AGC	GGC	GAG	GAG	ATG	GGC	CCC	GCC
55	Gly 145	Ala	Gly	Ala	Ser	Leu 150	Gly	Gly	Ser	Gly	Glu 155	Glu	Met	Gly	Pro	Ala 160

	100 1004		;;; ;	173	774	3:10	373	7177	1.10	;. ` ;	ии	300	; ; ;	CAG	A333	.; 1/1
5	Æ1 a	Ala	77.41	Ti	2003 1005	Ali	Mal	; ;	Ala	Al 4 175		Ali	Alt	Hin	2001 1008	
.,	173	.j.;	;	'A.	TAG.	(12kc)	CAC	1231	· `/A\;`	· 75.	1741	;;;;	1 1.1	110	CA.	·'//.
1.0	Ali	317	lt.	H18 183		Ніп	Ніл	H1.;	His 185	Н1.	Hii	Ala	Ala	41y 190	Hin	His
10	CAC 624	CAC	CCG	ACG	GCC	GGC	GCG	aca	GGC	GCC	deg	GGC	AGC	GCG	GCC	GAT
15	Hir	His	Fr 195	Thr	Ala	117	Ala	1: 1:30	77.7	ži.i	Ala	зlу	205	Ala	Ala	Ala
15	T(*);		GGT	GGC	GCT	GGG	GGC	g. G	GGC	GGC.	- 84T	GGC	775 }	GCC	AGC	GTT
20	S127	Ala 210	Зlу	Gly	Ala	Gly	Gly 215	Ala	-37.7	327	Hy	Gly 220	Tir	Ala	Ser	Val
_()	GGG TD0	GGC	GGC	GGC	GGC	GGC	GGC	GGC	GGC	GGA	GGC	GGC	GGG	GGC	GCG	GCG
25	117 225	Gly	Gly	Gly	Sly	G17 230	Gly	Gly	Hly	Gly	Gly 235	Gly	sily	Bly	Ala	Ala D40
'	GGC 768	GCC	CTG	CAC	CCG	CAC	CAC	GCC	GCC	GGC	GGC	CTG	CAC	TTC	GAC	GAC
3()	Gly	Ala	Leu	His	Pro 245	His	His	Ala	Ala	Gly 250	Gly	Leu	His	Phe	Asp 255	Asp
_,,,,	CGC 816	TTC	TCC	GAC	GAG	CAG	CTG	GTG	ACC	ATG	TCT	GTG	CGC	GAC	TGG	AAC
35	Arg	Phe	Ser	Asp 260	Glu	Gln	Leu	Val	Thr 265	Met	Ser	Val	Aig	Asp 270	Trp	Asn
ياي!	CGG 864	CAG	CTG	CGC	GGG	GTC	AGC	AAG	GAG	GAG	GTG	ATC	CGG	CTG	AAG	CAG
4()	Arg	Gln	Leu 275	Arg	Gly	Val	Ser	Lys 280	Glu	Glu	Val	Ile	Arg 285	Leu	Lys	Gln
W	AAG 912	AGG	CGG	ACC	CTG	AAA	AAC	CGC	GGC	TAT	GCC	AAG	TCC	TGC	CGC	TTC
45	Lys	Arg 290	Arg	Thr	Leu	Lys	Asn 295	Arg	Gly	Tyr	Ala	Lys 300	Ser	Cys	Arg	Phe
re'	AAG 960	AGG	GTG	CAG	CAG	AGA	CAC	GTC	CTG	GAG	TCG	GAG	AAG	AAC	CAG	CTG
50	Lys 305	Arg	Val	Gln	Gln	Arg 310	His	Val	Leu	Glu	Ser 315	Glu	Lys	Asn	Gln	Leu 320
.'\/	CTG 1008		CAA	GTC	GAC	CAC	CTC	AAG	CAG	GAG	ATC	TCC	AGG	CTG	GTG	CGC
55	Leu	Gln	Gln	Val	Asp 325	His	Leu	Lys	Gln	Glu 330	Ile	Ser	Arg	Leu	Val 335	Arg
71.71	GAG 1056		GAC	GCG	TAC	AAG	GAG	AAA	TAC	GAG	AAG	TTG	GTG	AGC	AGC	GGC

Hu Arg Asp Ala Tyr Lys Glu Lys Tyr Glu Lys Leu Val Ser Ser Gly 340 345 TTU CUA GAA AAC GGC TCG AGC AGC GAC AAC CCG TCC TCT CCC GAG TTT 1104 The Arg Slu Ash Gly Ser Ser Ser Asp Ash Pro Ser Ser Pro Glu Pha 355 360 365 TTC ATA ACT GAG CCC ACT CGC AAG TTG GAG CCA TCA GTG GGA TAC GCC 10 Phe Ile Thr Glu Pro Thr Arg Lys Leu Glu Pro Ser Val Gly Tyr Ala 375 ACA TIT IGG AAG CCC CAG CAI CGI GIA CII ACC AGI GIG IIC ACA AAA 15 Thr Phe Trp Lys Pro Gln His Arg Val Leu Thr Ser Val Phe Thr Lys 395 390 TGA 20 1203 25 (2) INFORMATION FOR SEQ ID NO:2: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 400 amino acids (B) TYPE: amino acid 30 (D) TOPOLOGY: linear (ii) MOLECULE TYPE: protein (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2: 35 Met Ala Ser Glu Leu Ala Met Ser Asn Ser Asp Leu Pro Thr Ser Pro 10 Leu Ala Met Glu Tyr Val Asn Asp Phe Asp Leu Met Lys Phe Glu Val 40 25 Lys Lys Glu Pro Val Glu Thr Asp Arg Ile Ile Ser Gln Cys Gly Arg 3.5 45 Leu Ile Ala Gly Gly Ser Leu Ser Ser Thr Pro Met Ser Thr Pro Cys 55 Ser Ser Val Pro Pro Ser Pro Ser Phe Ser Ala Pro Ser Pro Gly Ser 65 70 75 5 . Arg Gly Glu Gln Lys Ala His Leu Glu Asp Tyr Tyr Trp Met Thr Gly 8.5 Tyr Pro Gln Gln Leu Asn Pro Glu Ala Leu Gly Phe Ser Pro Glu Asp 5.5 100 105 Ala Val Glu Ala Leu Ile Ser Asn Ser His Gln Leu Arg Gly Gly Phe

115 120 Asp Gly Ty: Ala Arg Gly Ala Gln Gln Leu Ala Ala Ala Ala Gly Ala 135 5 Try Ala Gly Ara Ser Leu Gly Gry Ser Gly Glu Glu Met Gly Pro Ala 150 155 Ala Ala Val Val Ser Ala Val Ile Ala Ala Ala Ala Ala Gln Ser Gly 10 Ala Gly Pro His Tyr His His His His His Ala Ala Gly His His 180 185 15 His His Pro Thr Ala Gly Ala Pro Gly Ala Ala Gly Ser Ala Ala Ala 195 200 Ser Ala Gly Gly Ala Gly Gly Ala Gly Gly Gly Pro Ala Ser Val 215 20 235 Gly Ala Leu His Pro His His Ala Ala Gly Gly Leu His Phe Asp Asp 25 245 250 Arg Phe Ser Asp Glu Gln Leu Val Thr Met Ser Val Arg Asp Trp Asn 260 265 Arg Gln Leu Arg Gly Val Ser Lys Glu Glu Val Ile Arg Leu Lys Gln 30 280 Lys Arg Arg Thr Leu Lys Asn Arg Gly Tyr Ala Lys Ser Cys Arg Phe 290 295 35 Lys Arg Val Gln Gln Arg His Val Leu Glu Ser Glu Lys Asn Gln Leu 310 315 320 Leu Gln Gln Val Asp His Leu Lys Gln Glu Ile Ser Arg Leu Val Arg 40 325 330 Glu Arg Asp Ala Tyr Lys Glu Lys Tyr Glu Lys Leu Val Ser Ser Gly 345 350 45 Phe Arg Glu Asn Gly Ser Ser Ser Asp Asn Pro Ser Ser Pro Glu Phe Phe Ile Thr Glu Pro Thr Arg Lys Leu Glu Pro Ser Val Gly Tyr Ala 370 375 380 50 Thr Phe Trp Lys Pro Gln His Arg Val Leu Thr Ser Val Phe Thr Lys 385 390 395